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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.              | CONFIRMATION NO.       |
|---|-------------|----------------------|----------------------------------|------------------------|
| 10/034,294  | 12/21/2001  | Seabron Adamson      | SAZ-002.01 (21457-201)           | 9749                   |
| 25181 7590 06/29/2007<br>FOLEY HOAG, LLP<br>PATENT GROUP, WORLD TRADE CENTER WEST<br>155 SEAPORT BLVD<br>BOSTON, MA 02110 |             |                      | EXAMINER<br>BORLINGHAUS, JASON M |                        |
|   |             |                      | ART UNIT<br>3693                 | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>06/29/2007          | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/034,294             | ADAMSON, SEABRON    |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Jason M. Borlinghaus   | 3693                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/31/01 & 4/10/07.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/21/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicant's election with traverse of Claims 1 - 14 in the reply filed on 4/10/07 is acknowledged. The traversal is on the ground(s) that Invention (I), represented by Claims 1 – 14, and Invention (II), represented by Claims 15 –33, do overlap. This is not found persuasive because while Inventions I and II both relate to trading electrical transmission rights, they both contain non-overlapping methodologies, such as are evident in the dependent claims. Such methodologies, in addition, to being non-overlapping are non-obvious and provide each Invention with a separate utility.

The requirement is still deemed proper and is therefore made FINAL.

### ***Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Requirement for Information***

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

In response to this requirement, please provide a copy of each of the following items of art referred to in the specification, such art including:

- Hogan, W., Contract Networks for Electric Power Transmission, Journal of Regulatory Economics, 4:211-242, 1992. (see specification, p. 2);
- Schweppe et al., Spot Pricing of Electricity, Norwell: Kluwer Academic, 1988. (see specification, p. 2);
- Chao et al., Flow-Based Transmission Rights and Congestion Management, Electricity Journal, Vol. 13, No. 8:38-58, 2000. (see specification, p. 2);
- Chao, H. and Peck, S., A Market Mechanism for Electric Power Transmission, Journal of Regulatory Economics, 10:25-59, 1996. (see specification, p. 2);
- Ruff, L., Flowgates vs. FTRs, and Options vs. Obligations, August 26, 2000. (see specification, p. 4);
- Hogan, W., Flowgate Rights and Wrongs, August 20, 2000. (see specification, p. 4); and
- Stoft, S., Congestion Pricing with Fewer Prices Than Zones, Electricity Journal, pp. 23-31, May 1998. (see specification, p. 4).

In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in

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the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of the requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97 where appropriate.

This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 1 – 14** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims are replete with vague language,

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contradictory wording and unclear grammar/punctuation. Examiner cites the following as examples:

Claim 1 states “receiving offers to buy and sell point-to-point transmission rights on a network from market participants.” Are the offers being received via a network, such as being received by a computer via a computer network? Or does the transmission rights on a network pertain to the rights to transmit electricity through a network, such as a power grid?

Claim 1 states “calculating quantity exchange rates between pairs of offers to buy and sell transmission rights for subsequent representation to other market participants” Does this mean that the calculated quantity exchange rates are to be presented to market participants? Or does this mean that the offers to buy and sell transmission rights are to be presented to market participants?

Claim 1 also states “substantially all binding constraints” (emphasis added). What are the metes and bounds of “substantially all”? Such terminology is deemed indefinite and vague.

Claim 3 states “ “potentially binding constraints” and “each possible trade”. (emphasis added). What are the metes and bounds of “potentially” and “possible”? Everything has potential or possesses some possibility of occurrence, although the probability of said factor exercising its potential or actualizing itself might be deemed remote. Such terminology is deemed indefinite and vague.

Claims 4 and 7 also claim “possible trades” (emphasis added). As cited earlier, such terminology is deemed indefinite and vague.

Claim 6 states "constraints on transmission is determined" (emphasis added). Examiner believes that this should read "constraints on transmission are determined". (emphasis added).

Claim 8 states "representing offers to buy and sell transactions made by each participant to other participants." Regarding "to other participants," what does this pertain to? Is this further defining the offer, such as the offer is being made by one participant to another participant? Or is this further defining the representation function, such as the offers being represented to other participants?

Claim 10 states "processing orders to buy and sell transmission rights submitted from the participants, which orders are in response". Examiner believes that this should read "in which orders are in response." (emphasis added).

Claim 13 states "limiting trades in transmission rights to at least one right, rather than providing a portfolio of rights." Claim appears to be contradicting itself. Limiting trades in transmission to **at least one right**, which indicates that that the trades may involve more than one right. (emphasis added) However, Claim 13 also states "rather than providing a portfolio of rights" which indicates that a plurality of rights cannot be traded.

Additional claims are rejected based upon dependency from above rejected claims.

Appropriate correction is required.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1 - 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuck (US Patent 6,115,698) in view of Disclosed Prior Art (applicant's specification).

**Regarding Claims 1 – 6**, Tuck discloses a method for trading electrical transmission rights (electric energy), the method comprising:

- receiving offers to buy and sell (buy and sell offers) point-to-point transmission rights on a network (electric grid) from market participants (utility companies). (see abstract; col. 2, lines 19 - 67);
- calculating quantity exchange (electricity transmission) rates between pairs of offers to buy and sell transmission rights for subsequent representation to other market participants to and from their defined locations on the network. (see col. 2, lines 4 – 41);



- the quantity exchange (electricity transmission) rates being calculated on a basis of the ratios of their impact on binding transmission constraints (transmission capacity), such that all binding constraints (transmission capacity constraints) on the network can be satisfied when trading occurs (thereby preventing overload). (see col. 2, lines 4 – 41; col. 18, lines 44 - 67);
- matching trades to buy and sell transmission rights based on the offers to buy and sell transmission rights submitted by market participants that are currently valid on the system. (see col. 18, lines 44 – 67);
- when multiple transmission constraints are simultaneously binding on the network (maximum transmission capacity of electric grid and capacity consumed through each individual transmission transaction), the quantity exchange (electricity transmission) rates can be established by determining impact of a trade between each pair of offers to buy and sell on each of the binding constraints (related to transmission capacity). (see col. 2, lines 4 – 41);
- ensuring that under each trade the transmission constraints (maximum transmission capacity) can continue to be met when a trade is carried out (thereby preventing overload). (see col. 2, lines 4 – 41);
- updating data, during trading, to reflect changes in the state of the network or other contingencies (such as when capacity is consumed). (see col. 2, lines 4 – 41);

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- creating new data (newly updated data) for use in calculating exchange (electricity transmission) rates between transmission rights for possible and actual trades. (see col. 2, lines 4 – 41);
- wherein the data is non-constant (by virtue of updating of data), such that constraints on transmission (transfer capabilities) can be determined on individual network elements (interfaces) in view of scheduled trades. (see col. 4, line 60 – col. 5, line 22);
- wherein constraints on transmission (available capacity) is determined based on a database of existing trades. (see col. 18, lines 44 – 68);

Tuck does not teach a method for wherein calculations employ a power transfer distribution function (PTDF) in functional or matrix form.

Disclosed Prior Art discloses a method comprising:

- the step of calculating, the ratios of impact on binding transmission constraints (maximum allowable power flows across lines, elements or transmission interfaces) are defined by a power transfer distribution function (PTDF) in functional or matrix form. (see para. 3);

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Tuck by incorporating the use of a power transfer distribution function, as disclosed by Disclosed Prior Art, as said function is standard and conventional for computation for electricity transmission capabilities, as disclosed by Disclosed Prior Art.

**Regarding Claims 7 – 14**, such claims recite similar limitations as claimed in previously rejected claims, would have been obvious based upon previously rejected claims, or are otherwise disclosed by the prior art applied in previously rejected claims. Such claim limitations are therefore rejected using the same art and rationale as previously utilized.

**Examiner's Note:** The Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

### ***Conclusion***

This Office action has an attached requirement for information under 37 CFR 1.105. A complete reply to this Office action must include a complete reply to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

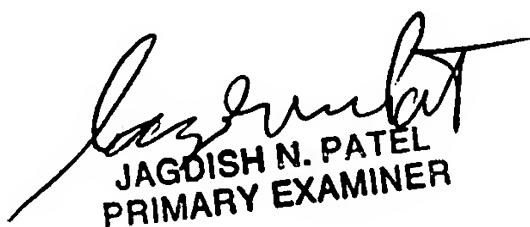
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Borlinghaus whose telephone number is (571) 272-6924. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on (571) 272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMB

June 21, 2007

  
JAGDISH N. PATEL  
PRIMARY EXAMINER